

# metos

## CERAMIC HOB RANGE

ARDOX IC

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### User Manual

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Dear Customer,

Congratulations on deciding to choose our appliance for your kitchen activities. You made an excellent choice. We will do our best to make you a satisfied customer like thousands of customers we have around the world.

Please read this manual carefully. You will learn correct, safe and efficient working methods in order to get the best possible benefit from the appliance. The instructions and hints in this manual will give you a quick and easy start, and you will soon note how nice it is to use our equipment.

All rights are reserved for technical changes.

You will find the main technical data on the rating plate fixed to the equipment. When you need service or technical help, please let us know the serial number shown on the rating plate. This will make it easier to provide you with correct service.

For your convenience, space is provided below for you to record your local service contact information.

Service phone number:.....

Contact person:.....



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<b>1. General .....</b>	<b>1</b>
1.1 Symbols used in the manual .....	1
1.2 Symbols used on the appliance .....	1
1.3 Checking the relationship of the appliance and the manual .....	1
<b>2. Safety .....</b>	<b>3</b>
2.1 Safe use of the appliance .....	3
2.2 Safety instructions in case of malfunction .....	3
2.3 Disposal of the appliance .....	3
<b>3. Functional description .....</b>	<b>4</b>
3.1 General .....	4
3.2 Application of the appliance .....	4
3.2.1 Prohibited use .....	4
3.3 Construction and operating principle .....	4
3.3.1 Operating switches and indicator lights .....	4
<b>4. Operation instructions .....</b>	<b>6</b>
4.1 Before using the appliance .....	6
4.1.1 Selecting cookware for ceramic hobs with infrared heating .....	6
4.1.2 Selecting cookware for ceramic hobs with induction heating .....	6
4.2 Operation procedures .....	7
4.2.1 Using the range .....	7
4.3 After use .....	7
4.3.1 Cleaning .....	7
4.3.2 Other service measures .....	8
<b>5. Installation .....</b>	<b>9</b>
5.1 General .....	9
5.2 Ambient conditions .....	9
5.3 Storage, transporting and unpacking the range .....	9
5.4 Positioning the range .....	9
5.5 Electrical connections .....	10
5.6 Test-run .....	10
<b>6. Troubleshooting .....</b>	<b>11</b>
6.1 Troubleshooting guide .....	12

## **8. Technical specifications ..... 23**

# 1. General

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the appliance.

Keep this manual in a safe place for eventual use by other operators of the appliance.

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and following local regulations. The connection of the appliance to the electric and water supply must be carried out by qualified persons only.

Persons using this appliance should be specifically trained in its operation.

Switch off the appliance in case of failure or malfunction. The periodical function checks requested in the manual must be carried out according to the instructions. Have the appliance serviced by a technically qualified person authorized by the manufacturer and using original spare parts.

Not complying with the above may put the safety of the appliance in danger.

The manufacturer does not take responsibility for any damages in case the operation instructions and warnings contained in this manual are neglected.

## 1.1 Symbols used in the manual



This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.



This symbol informs about the right way to perform in order to prevent bad results, appliance damage or hazardous situations.



This symbol informs about recommendations and hints that help to get the best performance out of the appliance.

## 1.2 Symbols used on the appliance



This symbol on a part informs about electrical terminals behind the part. The removal of the part must be carried out by qualified persons only.

## 1.3 Checking the relationship of the appliance and the manual

The rating plate of the appliance indicates the serial number of the appliance. If the manuals are missing, it is possible to order new ones from the manufacturer or the local rep-

representative. When ordering new manuals it is essential to quote the serial number shown on the rating plate.

## 2. Safety

### 2.1 Safe use of the appliance

Because the range is a heated appliance that has hot surfaces during normal use, the following warnings and instructions must be followed in order to avoid burns.

- During long-time operation even the frame surrounding the ceramic hob gets hot.
- The cooking zones are hot for a long time after switching them off, although the visible heat radiation has ended.
- For safe handling of cookware on the cooking top, always use heat protective gloves.
- Do not leave the range on for long periods totally without supervision.
- Do not place aluminium foil and plastic vessels on the hot hob surface.
- Metallic objects such as kitchen utensils, cutlery etc. shall not be placed on hob surface within induction heating zones as they could get hot.
- Take care when operating induction heating surface, as rings, watches and similar objects worn by user could get hot when in close proximity to the hob surface.
- Users with heart pacemakers should consult their doctor whether they are safe near induction range or not.

### 2.2 Safety instructions in case of malfunction



If the surface of ceramic hob is cracked, immediately disconnect the appliance from the mains.

### 2.3 Disposal of the appliance

The destroying of the appliance when its economical lifetime has been reached may be harmful to environment if not properly handled. Utilization of materials that are reusable is best done by professional personnel specialized in recycling.

## 3. Functional description

### 3.1 General

The Ardox IC range is an appliance with two different types of heating systems. Two cooking zones are heated by induction power source while another two cooking zones are heated by infrared (radiant) heating elements.

### 3.2 Application of the appliance

The appliance is intended for preparing various kinds of foodstuffs using cookware. The range can be used for cooking, keeping warm, flambering, roasting etc.

#### 3.2.1 Prohibited use



Use of the appliance for any other purposes than that of mentioned above is prohibited.

Preparing of food directly on the ceramic hob surface without cookware is prohibited.

### 3.3 Construction and operating principle

Ceramic hob surface of Ardox IC consists of two hob elements with induction heating source and two hob elements with infrared heating elements. Cooking zones for each hob element are marked on glass ceramic surface. Induction cooking zones are marked by squares. Infrared heating zones are marked by circles.

Cookware placed on ceramic hob surface within induction heating zones is heated up by means of electromagnetic field generated by induction heating source. Electromagnetic field influences only the bottom of cookware. Energy transfer stops immediately if cookware is taken away from hob surface and starts again when cookware has been placed back on hob surface.

Cookware placed on ceramic hob surface within infrared heating zones is heated up by means of radiant heating elements placed beneath ceramic hob surface.

#### 3.3.1 Operating switches and indicator lights

Each cooking zone is operated by means of stepless power switch. Two power switches for induction heating zones are located on the left side of control panel, and two power switches for infrared heating zones are located on the right side of the control panel.

## Functional description

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Above each power switch, there is a green LED indicator. Steady light of indicator means that power switch is on and power is transferred to corresponding heating zone.

To generate power for infrared cooking zone, turn the corresponding switch from “0” position to any position between “1” and “6”. The maximum power is when the switch is in “6” position, and the minimum when in “1” position.

To generate power for induction cooking zone, put first cookware within cooking zone and turn corresponding switch from “0” position to any position between “1” and “12”. The maximum power is when the switch is in “12” position, and the minimum power when the switch is in “1” position.

## 4. Operation instructions

### 4.1 Before using the appliance

#### 4.1.1 Selecting cookware for ceramic hobs with infrared heating

Cookware made of stainless steel, aluminium and enamelled steel is best suitable for cooking. Enamel based cast iron cookware can also be used if handled with extra care.



Cookware made of copper, ceramic and glass is not fit for use on ceramic hobs with infrared heating.

#### 4.1.2 Selecting cookware for ceramic hobs with induction heating

Cookware made from stainless steel with a compound multilayer base. The magnetic induction base functions as a part of the hob's magnetic field. Enamelled steel, cast iron and enamelled cast iron cookware is also suitable for induction hobs.

As a rule, all the cookware suitable for induction hobs can be recognized by the mark "induction" on the base of cookware. If there is no mark on a base, it is recommended to use a permanent magnet. The magnet must stick to the bottom of cookware.



Diameter of the cookware base has to be at least 120 mm. Cookware with base diameter less than 120 mm is not detected.



Cookware made of copper, aluminium, ceramic and glass is not suitable for use on ceramic hobs with induction heating.



Cookware made of stainless steel with base which does not attract a permanent magnet is not suitable for use on ceramic hobs with induction heating.

To get the best benefit from the range as well as from cookware, please observe the following rules:

- Always lift cookware, do not drag
- Use good quality flat-based cookware
- Wait for pans to cool before put it in cold water
- Always ensure cookware has a clean, dry base before use
- Ensure cookware handles are positioned safely and away from heat sources
- Always use lids except when frying

- Ensure cookware matches the size of cooking zone where possible
- Remember good quality cookware retain heat well, so generally, only low or medium heat is necessary

## 4.2 Operation procedures

### 4.2.1 Using the range



Ardox IC range with ceramic hobs heats up very fast, so no preheating is necessary.

#### Infrared cooking zones

Select cooking zone according to cookware to be applied and food to be prepared. Start cooking from position “6” and when boiling begins, decrease the power as needed. Cookware should be placed on the centre of heating zone, otherwise the bottom is heated unevenly.



Despite the fact that infrared heating elements are equipped with temperature limiters, the cooking zones should not be left without a pan for a long period. If the set power of cooking zone exceeds the heat reception capability of the pan, the temperature limiter would adjust the power as needed.

#### Induction cooking zones

To generate power for induction cooking zone, put first cookware within cooking zone and turn corresponding switch from “0” position to any position between “1” and “12”. The maximum power is when the switch is in “12” position and the minimum power when the switch is in “1” position.



Induction heating zones are also controlled by temperature sensor. Overheated pans (hot oil, empty pans) can be detected and energy transfer will be stopped. The induction zones must be restarted after they have cooled down.



If there is a long interruption in the electricity supply, all power switches of the range should be set to “0” position. This should be done to prevent unexpected start up of the range when electricity supply is restored.

## 4.3 After use

### 4.3.1 Cleaning



Use of water hose or pressure cleaning jet is strictly forbidden.



When cleaning the ceramic hob surface, remember that it is hot for a long time after use.

The cleaning of ceramic hob surface is identical to cleaning of other similar surfaces like glass. Do not use corrosive or abrasive agents such as grill-and oven-sprays, stain-and rust removers, scouring powder and rough sponges. Cleaning is much easier if possible spills are removed immediately with damp cloth.

Sugar and mixes containing much sugar must be removed immediately, because later removing is labourious and may leave permanent marks.

Burnt spillovers are easy to remove with a scraper especially intended for cleaning ceramic hob surfaces.

If plastic or aluminium foils melt on the ceramic hob surface, they can be also removed with the scraper.

When cleaning, always prefer chemical cleaning methods rather than mechanical rubbing. Use a slightly alkaline detergent (pH 8-10) diluted in water according to instructions when cleaning the surfaces of the range.

#### 4.3.2 Other service measures



The appliance does not include any user serviceable parts inside. Service must be done by authorised service personnel only.

## 5. Installation

### 5.1 General

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and in compliance with local rules and regulations. These instructions must be used together with the installation drawing.



The connection of the appliance to the electrical and water supply must be carried out by qualified persons only.

### 5.2 Ambient conditions

This appliance is intended to be used under the following ambient conditions:

Max.ambient temperature:

Storage >-20° C...+70° C

Function >+5° C...+40° C

Max. relative humidity of air:

Storage >10%...90%

Function >30%...90%

### 5.3 Storage, transporting and unpacking the range

It is recommended to keep appliance in its own package before the actual installation begins. It protects appliance from outer damages. If it is necessary to unpack appliance, possible lifting must be done from the bottom frame using suitable spacers of wood.

In order to avoid damages, it is not allowed to use ceramic hob surface as a workbench during installation.

### 5.4 Positioning the range



Because the temperature of infrared cooking zones accidentally forgotten on without a pan may reach even 550° C, it is mandatory to follow local fire safety regulations when installing the range.



This appliance is equipped with its own internal cooling system. Air inlet is located on the bottom of the stainless steel enclosure. Temperature of intake air should be below 40° C. This appliance can not be placed direct near ovens or other heating appliances where ambient temperature may reach over 40°C.

When the range is in the right place, it must be levelled in horizontal position by turning adjustable legs. After that, the rear legs must be fixed to the floor by means of flanges and anchor bolts (see installation drawing).

## 5.5 Electrical connections



Check and ensure that supply voltage is the same as the voltage given on the rating plate of the appliance. The electrical connections must satisfy local house installation regulations. The valid national and local regulations of the electricity supply inspection must be observed.



In order to make future servicing easier and increase safety, a mains switch must be installed near the appliance. This switch must disconnect the appliance completely from an electrical supply network.

The feed-through for the supply cable is located at the bottom of the range in the right front corner. To connect the supply cable to the terminal, do the following:

- Remove two screws which fix control panel and stainless steel enclosure
- Open ceramic hob and fix it by the fixing rod. The fixing rod is on the left side inside the enclosure
- Pull control panel out approx. 200...250 mm
- Connect supply cable to the terminal. The terminal is on the right side inside enclosure
- To assemble appliance, carry out operations described above in opposite order

Before close the ceramic hob, check that no wires inside the range get jammed.

## 5.6 Test-run

Please read the user manual before testing the appliance. After connecting the supply cable, check the function of the range.

Check that:

- Infrared cooking zones heat up and corresponding green LED illuminates after the power switch has been turned to ON position
- Induction cooking zones heat up after cookware has been placed onto cooking zone and the power switch turned to ON position.

## 6. Troubleshooting

If the appliance fails to work, check to ensure that

- it has been used according to instructions
- all removable parts are in place
- the disconnection switch (usually on a wall or in the immediate vicinity of the appliance) is in the ON position
- the circuit breakers (fuses) have not blown on the fuse board. Ask a qualified person to check the circuit breakers.

Abnormal function of induction heating unit can be recognised by means of flashing signals of green LED indicator (error messages). The indicator lamp flashes with an interval of 0,6 sec. The number of short flashes has to be counted. Information on the kind of possible errors you may find in the table below.

Number of Flashes	Possible Error	Remarks
Steady light	No fault, normal operation	
01	No coil current, hardware overcurrent	3)
02	High coil current, software overcurrent	3)
03	Cooling plate temperature	1)
04	Cooking plate temperature, overheating	1)
05	Power switch line break	1)
06	Excessive inside temperature	2)
07	Sensing element of cooking platform, short circuit	1)
08		
09		
10		
11		
12	Power reduction cooling plate temperature	2)
13	Power reduction cooking platform temperature	2)
14	Power reduction caused by bad pan material	2)

1)The induction unit stops working immediately.

2)The induction unit is still working with reduced power cycles.

3)Bad pan material

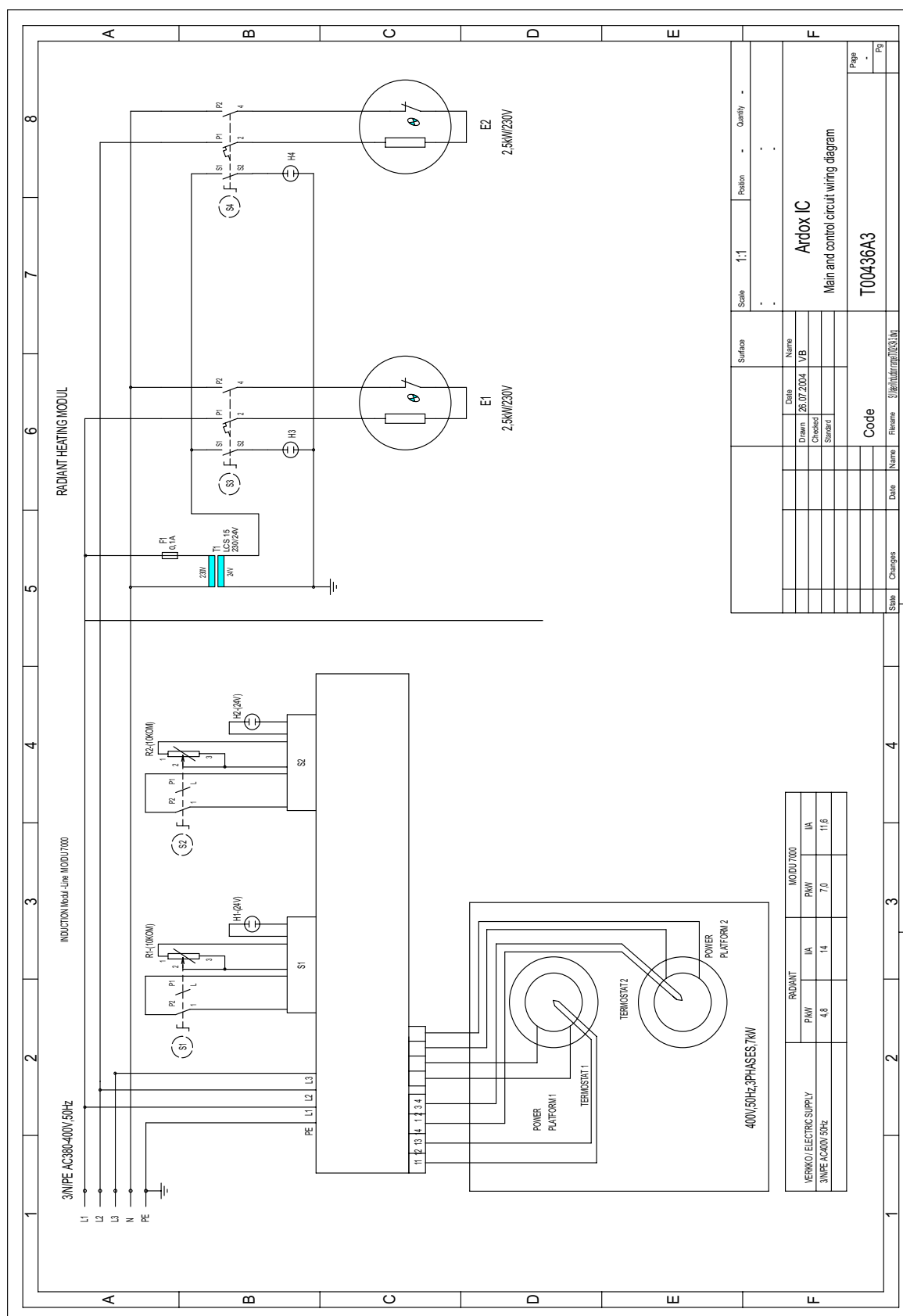
## 6.1 Troubleshooting guide

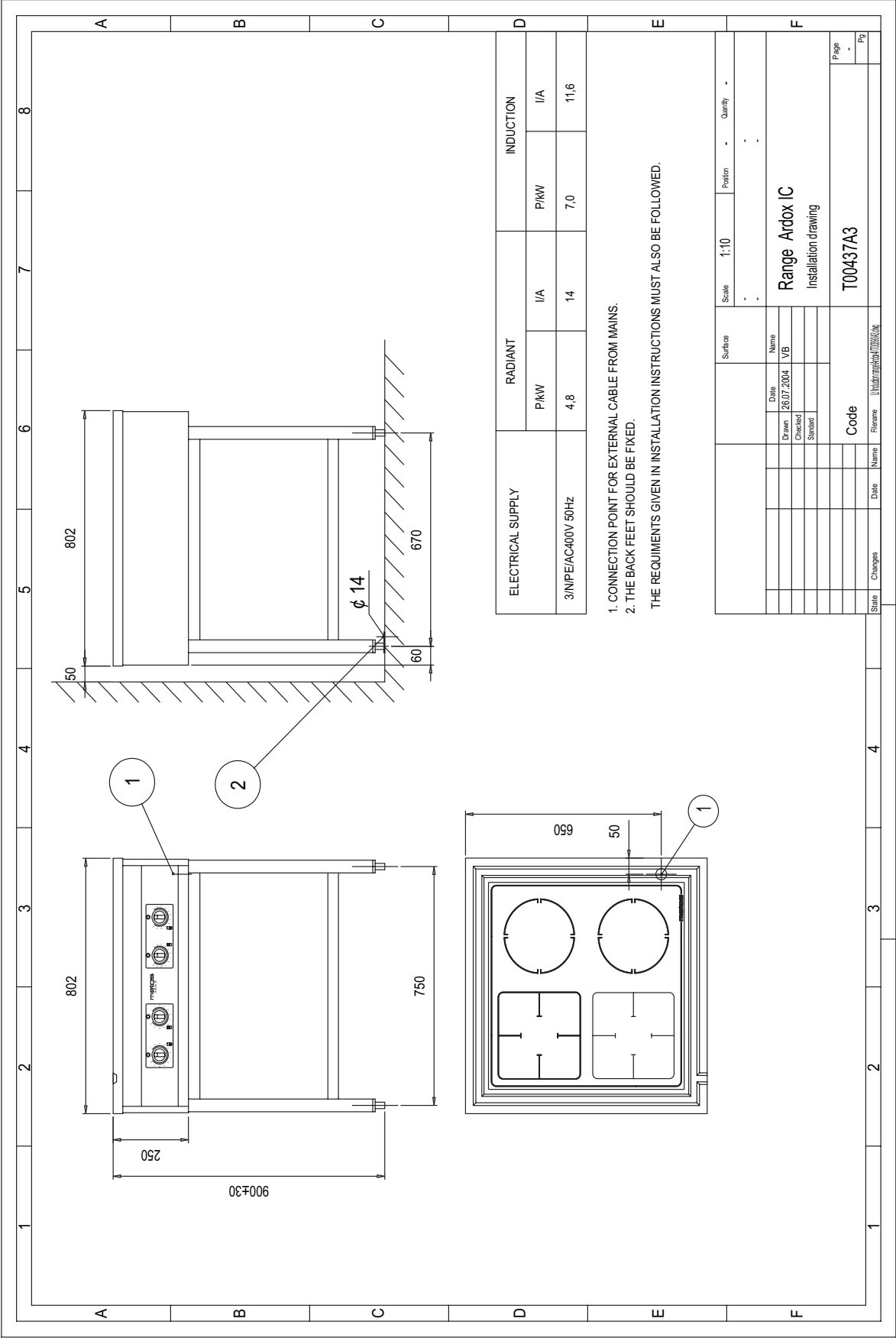
Problem	Possible Cause	Measures
No heating, indicator is OFF(dark)	no mains supply	check the electrical supply (cable plugged in the wall socket), check preliminary fuses
	control knob in OFF position	turn control knob ON
	pan too small (bottom diameter less than 12 cm)	use a suitable pan
	pan is not placed in the centre of the heating area (the cooker does not detect the pan)	move the pan to the centre of the heating area
	unsuitable pan	choose a pan which is recommended for induction cooking
	cooker defective	ask your supplier for repair service,unplug the cooker from an electrical supply
Poor heating, indicator is ON (shines)	used pan is not ideal	use a pan which is recommended for induction cooking, compare results with "your" pan
	air-cooling system obstructed	verify that air inlet air outlet are not obstructed with objects
	ambient temperature is too high (the cooling system is not able to keep the cooker in normal operation conditions)	verify that no hot air is sucked in by the fan.Reduce the ambient temperature.The air inlet temperature must be lower than 40°C/110°F
	one phase is missing (only with 3-phase supply)	check preliminary fuses
	cooker defective	ask your supplier for repair service,unplug the cooker from an electrical supply
No reaction to control knob positions	power switch defective	ask your supplier for repair service,unplug the cooker from an electrical supply
Heating cycle switches off and on within minutes, fan is active	air inlet or outlet obstructed	remove objects from air inlet and outlet slots, clean the slots
	grease filter is dirty	clean grease filter
Heating cycle switches off and on within minutes, fan is never active	fan defective	ask your supplier for repair service
	fan control defective	
After a longer permanent operating time the heating switches off and on within minutes	coil overheated, cooking area too hot	switch cooker off, remove pan and wait until the cooking area has cooled off
	empty pan	
	pan with overheated oil	
Small metallic objects (e.g. spoon) are heated up within the cooking area	pan detection tuned incorrectly	control logic board

## **8. Technical specifications**

**Main and control circuit wiring diagram T00436A3**

**Installation drawing T00437A3**





## Technical specifications

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Item	Model	Specification
Outer dimensions WxDxH	Ardox IC	802x802x900 mm
Ceramic cooking hob dimensions WxD	Ardox IC	650x650 mm
Cooking zone 2pcs. infrared	Ardox IC	2500W, ø230 mm each
Cooking zone 2pcs. induction	Ardox IC	3500W, 270x270 mm each
Power regulation	Ardox IC	Stepless energy regulator, indicator lamp for each zone
Material	Ardox IC	Ceramic cooking hob. All other surfaces of stainless steel
Weight with package	Ardox IC	Appr. 95 kg
Weight without package	Ardox IC	Appr. 60kg
Package dimensions WxDxH	Ardox IC	860x920x1050 mm
Electrical connection	Ardox IC	See installation drawing
Operating conditions	Ardox IC	>+5...40°C, Max.relative humidity of air >30%...90%

IC=ARDOX IC

**METOS AS**

**VAATIMUSTENMUKAISUUSVAKUUTUS  
FÖRSÄKRAN OM ÖVERENSSTÄMMELSE  
DECLARATION OF CONFORMITY**

Päiväys / Datum / Date

08.02.2006

Valmistajan nimi / Tillverkarens namn / Manufacturer's name

**METOS AS**

Osoite / Adress / Address

**SUUR SÕJAMÄE 10  
11415 TALLINN  
ESTONIA**

vakuutamme yksinomaan omalla vastuullamme, että seuraava tuote:

försäkrar helt på eget ansvar att följande produkt:

declare under our sole responsibility that the product:

Nimi, tyyppi tai malli / Namn, typ eller modell / Name, type or model

**Liesi / Spis / Range ARDOX -sarja / serien / series**

**Mallit / Modeller / Models :**

**I2, I4, I6, IC4**

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**EN-SFS 60204-1:1993 ; (osittain / delvis / partly)**

**EN-SFS 60335-1:2003 ; EN-SFS 60335-2-36:2003**

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och följer (vid krav) följande direktivs bestämmelser

and in conformity with (if necessary) orders of following directive(s)

**98/37/EC**

**LVD 73/23**

**EMC 89/336/EEC**

Vakuutuksen antopaikka ja päivä / Utfärdad på ort och datum / Place and date of issue

**TALLINN**

**08.02.2006**

Valtuutetun henkilön nimi-nimikirjoitus ja asema / Bemyndigad persons namn, namnteckning och befattning / Name, signature and title of authorized person

**Andres Kirstein, Managing Director**

**Jaan Muru, Production Manager**

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